UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,893	05/11/2006	Janne Johannes Peisa	3772-31	3456

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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER
BATISTA, MARCOS

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
11/13/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/578,893	PEISA ET AL.
	Examiner	Art Unit	
	MARCOS BATISTA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *08 August 2008*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *15-28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *15-28* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Art Unit- Location

1.   The Art Unit location of your application in the USPTO has changed. To aid in

correlating any papers for this application, all further correspondence regarding this

application should be directed to Art Unit 2617.

2.   This Action is in response to Applicant's amendment filed on 08/08/2008. Claims

15-28 are still pending in the present application. This Action is made **FINAL.**

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Isnard et al. (US 20030219005 A1), hereafter "Isnard," in view of Landaveri et al.

(US 20030103508 A1), hereafter "Landaveri."

Consider claim 15, Isnard discloses a method of transporting data over the

Iub/Iur interface of a UMTS Terrestrial Radio Access Network, UTRAN, in which frame

synchronization at the receiving node (**1**) is achieved by delaying the sending of data

frames from the sending node (**2**) by an offset delay, the method comprising: for data

services, defining an initial offset delay and dynamically varying the delay at the sending

node based upon time of arrival feedback received from the receiving node, to optimize

the offset delay value (**see figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-**

35).

Isnard discloses the invention of claim 15 above, but does not particular refer to

for speech services, defining said offset delay as a substantially fixed delay.

Landaveri, in analogous art, teaches for speech services, defining said offset

delay as a substantially fixed delay (**see par. 0054 lines 27-31**).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify the invention of Isnard and have it include for speech

services, defining said offset delay as a substantially fixed delay, as taught by

Landaveri. The motivation would have been in order to guarantee the delivery of real-

time voice frame with minimal interruption (**see par. 0054 lines 27-31**).

Consider claim 16, Isnard discloses a node (**1**) for use in a UMTS Terrestrial

Radio Access Network, UTRAN, the node comprising: means for transmitting data

frames to one or more receiving nodes (**2**) via lub/lur interfaces with an initial timing

offset (**see figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35**); and means

for dynamically varying the timing offset for data services based upon time of arrival

feedback received from the receiving node(s) (**see figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35**).

Isnard discloses the invention of claim 16 above, but does not particular refer to maintaining the timing offset substantially constant for speech services.

Landaveri, in analogous art, teaches maintaining the timing offset substantially constant for speech services (**see par. 0054 lines 27-31**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Isnard and have it include maintaining the timing offset substantially constant for speech services, as taught by Landaveri. The motivation would have been in order to guarantee the delivery of real-time voice frame with minimal interruption (**see par. 0054 lines 27-31**).

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 17-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Isnard
et al. (US 20030219005 A1).

        Consider claim 17, Isnard discloses a method of optimizing the timing offsets with
which data frames are transmitted over the Iur/Iub interfaces of a UMTS Terrestrial
Radio Access Network, UTRAN, the method comprising: for a given Iur/Iub interface or
set of Iur/Iub interfaces over which identical user plane data is to be sent, defining a
duration of a data frame receiving window for use by the receiving node(s) **(see figs. 1
and 4, par. 0057**); transmitting data frames from a sending node with an initial timing
offset **(see pars. 0059 and 0063**); reducing the timing offset at the sending node in a
stepwise manner **(see fig. 4, par. 0034 – the calculation is done by either extending
or reducing the transmission time**); and adjusting the timing offset at the sending
node in response to the receipt of one or more late time of arrival error reports at the
sending node **(see par. 0058 lines 10-14**).

        Consider claim 18, Isnard discloses wherein upward adjustments in the timing
offset are carried out in steps which are greater than the steps by which the timing offset
is reduced (see par. 0056).

        Consider claim 24, Isnard discloses wherein the sending node is one of a Radio
Network Controller, RNC, or a Node B, and each receiving node is the other of an RNC
or Node B (see fig. 5, par. 0055).

Consider claim 25, Isnard discloses wherein said initial timing offset is sufficient to ensure a likelihood that the frames will be received at the or each receiving node within the defined receiving window (see pars. 0059 and 0060).

Consider claim 19, Isnard discloses a method of optimizing the timing offsets with which data frames are transmitted over the lur/lub interfaces of a UMTS Terrestrial Radio Access Network, UTRAN, the method comprising (**see figs. 1 and 4**): for a given lur/lub interface or set of lur/lub interfaces over which identical user plane data is to be sent, defining a duration of a data frame receiving window for use by the receiving node(s) (**see par. 0057**); transmitting data frames from a sending node with an initial timing offset (**see pars. 0059 and 0063**); at the or each receiving node, collecting and/or computing time of arrival statistics for received data frames (**see fig. 5, par. 0055 lines 11-17**); periodically reporting said statistics to the sending node (**see pars. 0032 and 0061**); and adjusting the timing offset at the sending node on the basis of the received statistics (**see par. 0061**).

Consider claim 20, Isnard discloses wherein the collected statistics include one or more of: the mean, minimum, maximum, and variance of times of arrival for data frames received during some time period (see pars. 0033 and 0040).

Consider claim 21, Isnard discloses sending from the sending node to the or

each receiving node instructions identifying the statistics to be collected at the receiving

node and sent to the sending node (see fig. 7, pars. 0033 and 0067).

Consider claim 22, Isnard discloses wherein said instructions identify the

regularity with which the statistics must be sent, or events defining when the statistics

should be sent (see fig. 7, par. 0067).

Consider claim 23, Isnard discloses sending polling requests from the sending

node to each receiving node instructing the return of statistics (see pars. 0040 and

0067).

Consider claim 26, Isnard discloses a node (1) for use in a UMTS Terrestrial

Radio Access Network, UTRAN, the node comprising: means for transmitting data

frames to one or more receiving nodes via lub/lur interfaces with an initial timing offset

(see figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35); means for

reducing the timing offset in a stepwise manner (**see fig. 4, par. 0034 – the calculation

is done by either extending or reducing the transmission time**); and means for

adjusting the timing offset in response to the receipt of late time of arrival error reports

(see par. 0058).

Consider claim 28, Isnard discloses wherein the node is a Radio Network Controller or a Node B (see fig. 1, par. 0055).

Consider claim 27, Isnard discloses a node for use in a UMTS Terrestrial Radio Access Network, UTRAN, the node comprising: means for transmitting data frames to one or more receiving nodes via Iub/Iur interfaces with an initial timing offset (**see figs. 1 and 4, pars. 0049 lines 9-11 and 0050 lines 1-6, 27-35**); and means for receiving statistical data sent periodically from the or each receiving node and relating to the times of arrival of data frames at respective receiving nodes, and for adjusting the timing offset on the basis of the received statistics (**see pars. 0032 and 0061**).

Response to Arguments

7.   Applicant's arguments filed on 08/08/2008 have been fully considered but they are not persuasive.

After carefully revising the office action pertinent to the present response and remarks, 3 main point(s) have been identified:

1) The Applicant states that Isnard makes no distinction between data and voice services; Landaveri does not disclose defining a substantially fixed offset delay in order to achieve frame synchronization and make no reference to radio access network and that Nothing in Isnard or Landaveri would have led the person of ordinary skill in the art to define a substantially fixed offset delay for speech services in a UTRAN while

applying a dynamically varying offset delay for data services in the UTRAN (refer to

page 7 lines 11-19 and page 8 lines 1-4 of the Applicant's Remarks);

2) The Applicant states that Isnard only adjusts the timing offset when a frame is

received outside of the window while the claimed invention provides that the value of

the timing offset is reduced until a report is received that the frame is received outside of

the window, which permits optimization of the offset delay (refer to page 8 lines 16-18 of

the Applicant's Remarks).

3) The Applicant states that Isnard fails to disclose that the receiving node,

(corresponding to a Node B in Isnard), maintains and calculates the time of arrival

statistics (refer to page 8 lines 20-21 of the Applicant's Remarks).

Regarding point **1)**, the combination of Isnard and Landaveri clearly teaches the

distinction between data and voice services as intended in the claimed invention (see

pars. 0054 lines 27-31, 0058 lines 1-5, where Landaveri discusses maintaining a

provide minimal delay for constant bit rate traffic, such as voice and video. This is in line

with the claimed invention that uses synchronization to keep sensitive data jitter

substantially constant (see page 4 par. 0004 of Applicant's specification). Further more,

Landaveri does discuss an access radio network (see fig. 1, par. 0037). According to

the above citations, it would have been obvious for a person skilled in the art to have

combined the teachings of Isnard and Landaveri for the purpose minimizing jitter in

sensitive data transmission such as voice).

Regarding point **2),** Isnard clearly teaches reducing the timing offset at the

sending node in a stepwise manner (see pars. 0033 lines 1-6, 0034 lines 1-8, where

Isnard discusses reducing the times of transmission from the RNC for the next data

frames based on the synchronization parameters returned as sliding averages of the

times of arrival of the last frames received at the RNC).

Regarding point **3),** Isnard clearly teaches collecting and computing time of

arrival statistics for received data frames (see par. 0055 lines 1-17, where Isnard

discusses the calculating and obtaining an average of the time of arrival for each Node

B, which is updated a each reception by the RNC).

Therefore, the argued features are written such that they read upon the cited

reference(s).

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Marcos Batista, whose telephone number is (571) 270-

5209. The Examiner can normally be reached on Monday-Thursday from 8:00am to

5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Rafael Pérez-Gutiérrez can be reached at (571) 272-7915. The fax phone

number for the organization where this application or proceeding is assigned is (571)

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist/customer service whose telephone

number is (571) 272-2600.

Marcos Batista
/M. B./

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617

11/07/2008